State of California AIR RESOURCES BOARD Executive Order G-096-029-036 Equipment Precertification of QuikWater® Gas-Fired Direct-Contact Water Hea

Natural Gas-Fired Direct-Contact Water Heaters (Models 2500, 3500, and 5000)

WHEREAS, the Air Resources Board (ARB) has established a statewide Equipment and Process Precertification (Precertification) Program to assist air pollution control and air quality management districts in meeting the requirements of the Air Pollution Permit Streamlining Act (California Health and Safety Code section 42320-42323);

WHEREAS, the ARB has been given the authority under California Health and Safety Code section 39620 to develop and implement the Precertification Program which consists of a preliminary engineering evaluation of equipment or processes and provides recommended operating conditions;

WHEREAS, this Precertification does not constitute an air pollution permit or eliminate the responsibility of the end user to comply with all federal, state, and local laws, rules and regulations;

WHEREAS, QuikWater® has requested a Precertification of its Natural Gas-Fired Direct-Contact Water Heaters (model 2500 rated at 2.8 million British thermal units per hour (MMBtu/hr), model 3500 rated at 3.8 MMBtu/hr, and model 5000 rated at 5.0 MMBtu/hr);

WHEREAS, QuikWater[®] identified the following Precertification standards regarding the emissions performance of its Natural Gas-Fired Direct-Contact Water Heaters:

- 1. The QuikWater natural gas-fired direct-contact Water Heater Model 2500, rated at 2.8 million British thermal units per hour (MMBtu/hr), when operated at 57 percent, 76 percent, or 100 percent load, has oxides of nitrogen emissions no greater than 8.5 parts per million volume, measured on a dry basis (ppmvd), corrected to 3 percent oxygen and carbon monoxide emissions no greater than 6.8 ppmvd, corrected to 3 percent oxygen when the equipment is operated and maintained, in accordance with the QuikWater Installation, Operation, and Maintenance manual for this water heater;
- 2. The QuikWater natural gas-fired direct-contact Water Heater Model 3500, rated at 3.8 million British thermal units per hour (MMBtu/hr), when operated at 48 percent, 73 percent, or 95 percent load, has oxides of nitrogen emissions no greater than 7.7 parts per million volume, measured on a dry basis (ppmvd), corrected to 3 percent oxygen and carbon monoxide emissions no greater than 10.2 ppmvd, corrected to 3 percent oxygen when the equipment is operated and maintained, in accordance with

the QuikWater Installation, Operation, and Maintenance manual for this water heater;

3. The QuikWater natural gas-fired direct-contact Water Heater Model 5000, rated at 5.0 million British thermal units per hour (MMBtu/hr), when operated at 50 percent, 66 percent, or 95 percent load, has oxides of nitrogen emissions no greater than 7.1 parts per million volume, measured on a dry basis (ppmvd), corrected to 3 percent oxygen and carbon monoxide emissions no greater than 12.1 ppmvd, corrected to 3 percent oxygen when the equipment is operated and maintained, in accordance with the QuikWater Installation, Operation, and Maintenance manual for this water heater;

WHEREAS, this Precertification is valid only when QuikWater[®] Natural Gas-Fired Direct-Contact Water Heaters (Models 2500, 3500, and 5000) are manufactured, installed, and maintained in accordance with manufacturer's instructions;

WHEREAS, I find that the Applicant, QuikWater[®], has met the requirements specified in Title 17, California Code of Regulations, section 91400 which incorporate the ARB's Criteria for Equipment Precertification (Adopted June 14, 1996) and has satisfactorily demonstrated through independent testing that the QuikWater[®] Natural Gas-Fired Direct-Contact Water Heaters described in the application meets the identified Precertification standards;

WHEREAS, this performance Precertification is subject to all conditions and requirements of the ARB's Criteria for Equipment Precertification, including the provisions relating to suspension and revocation;

WHEREAS, marketing of this device using an identification other than that shown in this Executive Order shall be prohibited unless prior approval is obtained from the ARB. Any oral or written references to this Executive Order or its content by QuikWater®, its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that this Executive Order is not an endorsement or approval of QuikWater® Natural Gas-Fired Direct-Contact Water Heaters. No claim shall be made, such as "Approved by the Air Resources Board," with respect to any advertising or other oral or written communication. It is only a finding that QuikWater® Natural Gas-Fired Direct-Contact Water Heaters (Models 2500, 3500, and 5000) meet the identified Precertification standard, as specified in the evaluation report for application number 07209801;

WHEREAS, this performance Precertification shall expire three years from the date of this Executive Order, unless renewed.

NOW THEREFORE, IT IS HEREBY ORDERED, that the performance Precertification, Executive Order G-096-029-036, executed at Sacramento, California this 28th day of November, 2001, is hereby granted.

Michael P. Kenny Executive Officer

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By: Peter D. Venturini, Chief Stationary Source Division